

ABSTRACT OF THE DISCLOSURE

Disclosed is an encoding/decoding apparatus of a HARQ system using LDPC codes. A first LDPC code encoding apparatus encodes input information data and transmits the encoded data to the decoding apparatus. An interleaver interleaves the input information data. A second LDPC code encoder in parallel with the first LDPC code encoder performs LDPC code encoding on an output of the interleaver so as to transmit it to the decoding apparatus. The first LDPC code encoder transmits an output signal to the decoding apparatus at odd numbered retransmissions in response to a retransmission request from the decoding apparatus, and the second LDPC code encoder transmits an output signal to the decoding apparatus at even numbered retransmissions in response to the retransmission request from the decoding apparatus.